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[IL/IL]; 9 Oranim Street, 54052 Givat Shmuel (IL).
KLAIMAN, Moshe [IL/IL]; 21/2 Harava Street, 70700
Gedera (IL).

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(74) Agent: REINHOLD COHN AND PARTNERS; P.O.
Box 4060, 61040 Tel Aviv (IL).

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(71) Applicant (for all designated States except US): PAIEON
INC. [US/US]; 747 3rd Avenue, New York, New York
10017-2803 (US).

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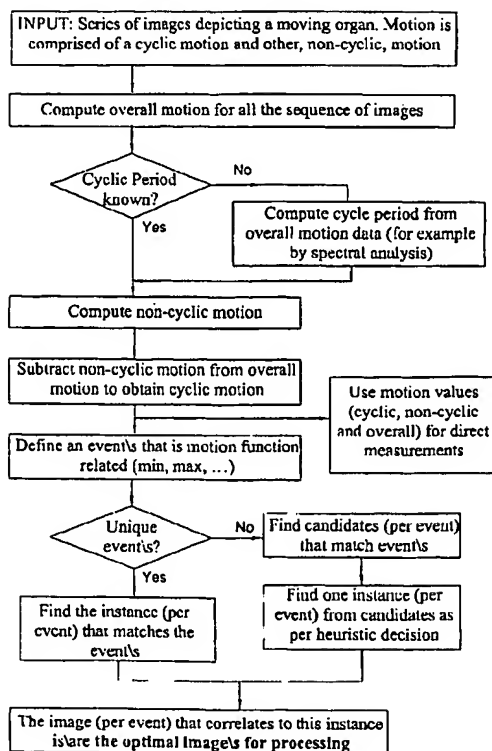
(72) Inventors; and

(75) Inventors/Applicants (for US only): ZARKH, Michael

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[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR IDENTIFYING AN OPTIMAL IMAGE WITHIN A SERIES OF IMAGES THAT
DEPICT A MOVING ORGAN



(57) Abstract: A method and system for quantifying a cyclic motion within a series of images depicting a moving object subject to composite motion containing a cyclic component and a non-cyclic component of lower frequency than the cyclic component. Composite motion is computed. The non-cyclic component is computed as the integral of motion over a motion cycle. The non-cyclic component is subtracted from the composite motion so as to obtain the cyclic component.

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ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL2004/000632

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-23

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-23

processing a series of images depicting a moving object
subject to composite motion for extracting a cyclic motion
component;

2. claims: 24-28

analysis of a graphical representation of a cyclic motion
for identifying those images in a series of images that
depict an event associated with cyclic motion of a moving
object;

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IL2004/000632

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06T7/20 G06T11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06T G01R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX, IBM-TDB, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 885 594 A (MEDINOL LTD) 23 December 1998 (1998-12-23)	1,2, 5-10,12, 13,16-23
A	abstract page 2, line 42 - line 50 page 4, line 20 - page 5, line 23 page 7, line 30 - line 45 page 10, line 38 - line 44 page 13, line 22 - page 15, line 14 figures 2,9 ----- -/--	3,4,11, 14,15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the International search

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Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3018

Authorized officer

Engels, A

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IL2004/000632

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>NELSON T R ET AL: "Three-dimensional ultrasound imaging" ULTRASOUND IN MEDICINE AND BIOLOGY, NEW YORK, NY, US, vol. 24, no. 9, December 1998 (1998-12), pages 1243-1270, XP004295279 ISSN: 0301-5629 chapters "Physiological Synchronization", "Clinical Applications - Cardiology" -----</p>	5-10,12, 16-22
A	<p>BANKMAN I: "Handbook of Medical Imaging - Processing and Analysis" 2000, ACADEMIC PRESS, SAN DIEGO, LONDON , XP002298756 Ratib O: "Quantitative Analysis of Cardiac Function" page 359 - page 374 in particular chapters 1, 2, 3 -----</p>	5-10,12, 16-22

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL2004/000632

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